

We Claim:

*Sumal*

1. A polymeric construct comprising a polysaccharide polymer having a selected medicament entrapped therewithin.

*Sub-B1*

2. The construct as defined in claim 1 wherein said polymer is selected from the group consisting of alginic acid or a pharmaceutically acceptable salt thereof; guar gum; gum karaya; gum Benjamin; plantago ovata gum; agar; carrageenan; cellulose; , gum karaya; gum Benjamin, plantago ovata gum; agar; carrageenan; cellulose; gelatin; gum arabic, pectin, galacturonic acid and a mixture of any of the foregoing polymers.

3. The construct as defined in claim 1 wherein said medicament comprises a protein or peptide medicament having a molecular size ranging from about 1K Dalton to about 150 K Daltons.

*Sub-B2*

4. The construct as defined in claim 3 wherein said medicament is selected from the group consisting of an insulin, an insulin analog, an amylin, an immunodilating protein, an interleukin, an inteferon, an erythropoietan, a heparin, a thrombolytic, an antitrypsin, an anti-protease, a hormone, a growth factor, an enzyme, a nucleic acid, an immunoglobulin, an antibiotic, an antiinfective, a calcitonin, a hematopoietic factor, a vaccine, a vasoactive peptide, an antisense agent, an oligonucleotide, DNase, a cyclosporin, ribavirin or a mixture of any of the foregoing medicaments.

5. The construct as defined in claim 3 wherein said medicament is selected from the group consisting of an insulin, an insulin analog, an amylin, glucagon, LH-RH, deltirex, leuprolide, gosorelin, nafarelin, octreotide, somatostatin, a calcitonin, parathyroid hormone, TRH, growth hormone-releasing hormone, G-CSF, G-SF, a cytokine, rhDNase, a heparin, an oligoneucleotide, ribavarin, glucagon, acetohexamide, chlorpropamide, tolazemide, tolbutamide,

glipizide, glyburide, glucophage, phentolamine, tumor neurosis factor (TNF), nerve growth factor (NGF), macrophage-colony stimulating factor (M-CSF), heparinase, bone morphogenic protein (BMP), hANP, glucagon-like peptide (GLP-1), renin, bradykinin, a bacitracin, a polymyxin, a colistin, tyrocidine, a gramicidin, a monoclonal antibody, a vaccine or a mixture of any of the foregoing medicaments.

6. The construct of claim 2 wherein said polymer is present in an amount of about 0.0000001 to about 10 percent by weight of said construct.

7. A method of preparing the construct of claim 1 which comprises, combining said polymer with said medicament to form a mixture; subjecting said mixture to agitation or mixing at a temperature of about -5 to about 28°C for about 0.1 to about 96 hours to form the construct.

8. A method of preparing the construct of claim 1 which comprises, dissolving said polymer and said medicament in a solvent to form a solution; exposing said solution to a critical pressure and temperature while mixing with a suitable anti-solvent to form the construct.

9. A method of preparing the construct of claim 1 which comprises, dispersing said polymer in a solution of said medicament to form a dispersion; subjecting said dispersion to a critical pressure and temperature while mixing with an appropriate anti-solvent to separate the construct after about 0.0001 to about 24 hours.

10. A method of preparing the construct of claim 1 which comprises, dissolving said polymer in a solution of said medicament to form a polymer solution and drying said polymer solution as a spray for about 0.1 to about 8 hours.

11. The method as defined in claim 8 wherein particles of such construct range from under 20 micrometers, to under 10 micrometers in diameter.
12. The method as defined in claim 9 wherein particles of such construct are under 20 micrometers in diameter.
13. The method as defined in claim 10 wherein particles of such construct are about 10 micrometers to about 20 micrometers in diameter.
14. The method as defined in claim 11 wherein particles of such construct range from under 10 micrometers to about 20 micrometers in diameter.